900

800

700

600

500

GTAA

1021.303 CACU

1219.785

1500

GGCCAAAU

2512.505

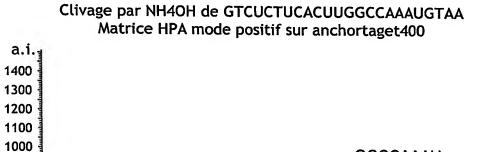
2500

m/z

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FIG.1
5'-GTCU|CTU|CACU|U|GGCCAAAU|GTAA

Fragment	Expected Mass	Found Mass
GTCUCTUCACUUGGCCAAAUGTAA	7312,9	
СТИ	918,6	
GTAA	1197,9	1201,3
CACU	1216,8	1219,8
GTCU	1247,8	1252,7
GGCCAAAU	2501,7	2512,5



2000

GTCU

1252.732

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FIG.2
5'-GTC|TC|TTCAC|TTGGC|C|AAATGTAA

Fragment	Expected Mass	Found Mass
GTCTCTTCACTTGGCCAAATGTAA	7398,9	· · · · · · · · · · · · · · · · · · ·
AC	637,4	
ПС	932,6	928,5
GTC	957,6	953,6
TTGGC	1591,0	1588,2
AAATGTA	2128,5	2127
AAATGTAA	2441,8	2440,5

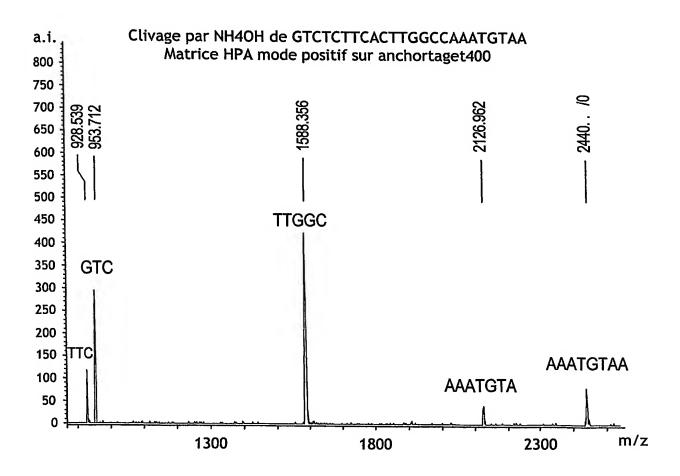


Figure 3

Fragments at 100% Exchange dNTP for NTP

5'-GT|CT|CT|T CACT T GGCCAAAT GT|AA
5'-GTC|TCTCTCACTTGGCCAAATGTAA
5'-GTCTCTTCACTTGGCCAAATGTAA
5'-GTCTCTCTCACTTGGCCAAATGTAA

Additional Fragments at 70% Exchange dNTP for NTP

- 5'-GTCTCTTCACTTCGCCAAATGTAA (25%)
- 5'-GTOTOTT CACTIFICOCOAAATGTAA (25%)
- 5'-GTCTCTTCACTTGGCCAAATGTAA (25%)
- 5'-GTCTCTTCAC TTGGCC AAATGTAA (25%)
- 5'-GTCTCTCACTTGGCCAAATGTAA (25%)
- 5'-GTCTCTTCACTTGGCCAAATGTAA (25%)
- 5'-G (25%)
- 5'-CHETTIERE THE GCC AND TANK (25%)

Figure 4

basic sequence:

5'-TTCACTTGGCCAAATGTRNAAAGNGAAGAACAGAGTC-3'

complementary template sequences:

- 3'-AAGTGAACCGGTTTACATTCCCTTCTTGTCTCAG-5' G template
- 3'-AAGTGAACCGGTTTACATTCGCTTCTTGTCTCAG-5' C template
- 3'-AAGTGAACCGGTTTACATTCTCTTCTTGTCTCAG-5' A template

primer sequence:

5'-TTCACTTGGCCAAATGTRNAAAG-3'

sequences after extension and before cleavage:

- 5'-TTCACTTGGCCAAATGT^{RNA}AAGG^{RNA}AAGG^{RNA}AAGG^{RNA}AACAG^{RNA}AGG^{RNA}
- 5'-TTCACTTGGCCAAATGT^{RNA}AAGCG^{RNA}AAGCAG^{RNA}AACAG^{RNA}AGCAG^R
- 5'-TTCACTTGGCCAAATGT^{RNA}AAGAG^{RNA}AAGAG^{RNA}AACAG^{RNA}AGCAG^{RNA}AGCAG^{RNA}TC-3' N = A

Fragments after cleavage:

 $AAGG^{RNA}$ G^{RNA} AAG^{RNA} $AACAG^{RNA}$ AG^{RNA} $AG^{$

 $AAGCG^{RNA}$ AAG^{RNA} $AACAG^{RNA}$ AG^{RNA} TC Fragments for N = C

 $AAGAG^{RNA}$ AAG^{RNA} $AACAG^{RNA}$ AG^{RNA} TC Fragments for N = A

Signals that differ:

 $AAGG^{RNA}$ for N = G = 1319 Da

 $AAGCG^{RNA}$ for N = C = 1633 Da

 $AAGAG^{RNA}$ for N = A = 1609 Da

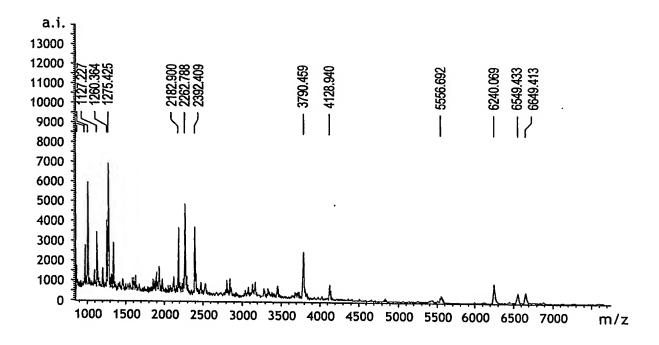
Signals that are the same:

 $AACAG^{RNA} = 1593 Da$

 $AAG^{RNA} = 990 Da$

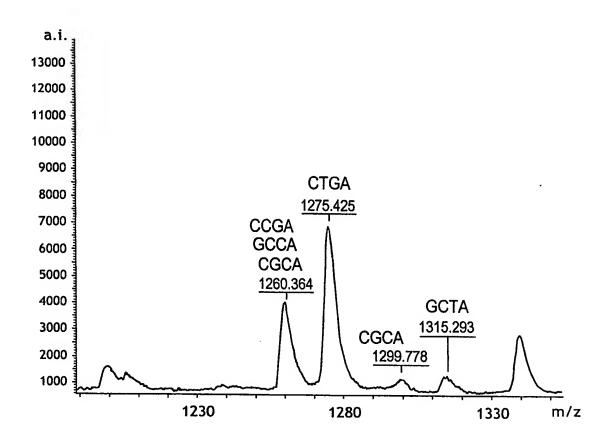
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FIG.5



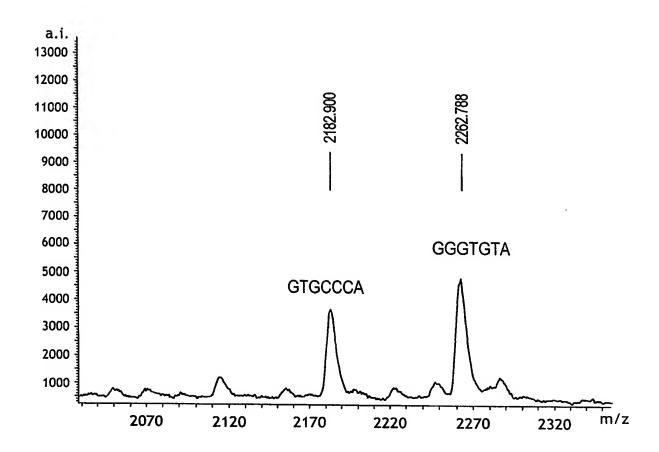
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FIG.6



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FIG.7

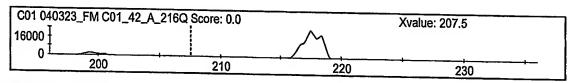


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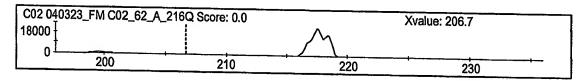
FIG.8

PCR 216 bp Fragment Forward Atp/dAtp

67% Atp/dAtp



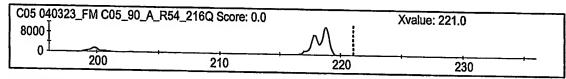
75% Atp/dAtp



80% Atp/dAtp



90% Atp/dAtp



100% Atp

